

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE****Express Mail No.: EL627421224US****In re application of: Christian KRAFT****Serial No.: 0 /****Filed: Herewith****For: MESSAGE EXCHANGE HANDLING CONCEPT****Group No.:****Examiner:****Commissioner of Patents and Trademarks****Washington, D.C. 20231**JC815 U.S. PTO  
09/735061

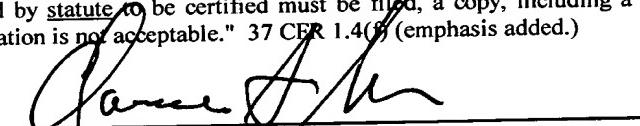
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**Country : United Kingdom**  
**Application Number : GB 9929574.3**  
**Filing Date : 14 December 1999**

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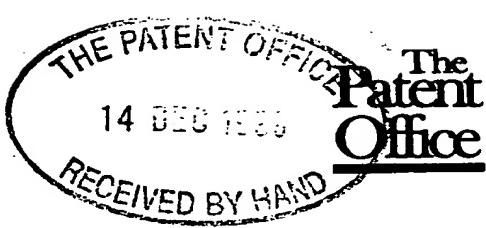
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MESSAGE EXCHANGING HANDLING CONCEPT

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Message exchange handling concept.

The invention relates to handling of messages between wireless  
5 communication terminals in a communication network.

Communication terminals for use in cellular communication networks are  
basically designed for voice communication. In the GSM system text  
messages may be sent via a point-to point short message service provided by  
10 the network. New phones having improved text editors have made it more  
popular to use short message services and recently it has been observed by  
some operators that the use of short message services corresponds to 10  
percent of the network traffic. Many operators see a significantly lower message  
percentage of the network traffic. However there is an indication saying that the  
15 message based traffic will rise in the coming years. Now it is possible to send a  
message from one terminal to another and to send a reply the opposite way.

Therefore there will be a need for providing an improved message exchange  
handling concept.

20 According to a first aspect of the invention there is provided a method for  
handling a message exchange session between wireless communication  
terminals via a wireless network, and including steps of initiating a message  
exchange session by identifying in a first communication terminal at least one  
25 other communication terminal to be invited to participate in the message  
exchange session, inputting a message text, and transmitting said message  
text to said at least one other communication terminal. The received message is  
responded to by inputting a message text for replying to the received message,  
adding said inputted reply message text to the received message text, whereby  
30 the aggregate message text includes the message exchange session history,

and transmitting said aggregate message text to the other communication terminal being parties in the message exchange session.

Hereby it is possible to transmit the message history, or at least the newest part 5 of it, between the terminals during the session. The users will have a possibility to just scroll a few lines to see the background for a recently received message. This is an extremely important feature as long as the major part of the mobile phones only shows 3-5 lines in the display. Advantageously the originator of each input in the history is identified with a chat name or the like.

10 The first aspect of the invention is also related to a wireless communication terminal having a message exchange session handling application for handling messages in a message exchange session in a wireless communication system. This terminal comprises a software application having 15 means for initiating a message exchange session, said initiating means includes means for identifying at least one other communication terminal to be invited to participate in the message exchange session and means for entering a text input as a message text. Furthermore the terminal comprises a transmitter for transmitting said message text to said at least one other 20 communication terminal, and a receiver for receiving a reply from said at least one other communication terminal. The software application furthermore having means for replying to a message during a message exchange session, and the replying means includes means for entering a text input, and means for adding said text input to the received message text for generating an 25 aggregate text message being replied by means of the transmitter.

A computer program product stored on a computer readable storage medium, comprises according to the first aspect of the invention computer readable program code means for replying to a message during a message exchange 30 session in a wireless communication system, said computer readable program

code means provides a message exchange session handling application in a wireless communication terminal, and said computer readable program code means handles a text input entered by the user, and adds said text input to the received message text for generating an aggregate message text for replying.

- 5 Such a computer program product may be flashed into the terminal at a service office or via the data port of the terminal e.g. via a Personal Computer e.g. having Internet access.

According to a second aspect of the invention there is provided a method for

- 10 handling a message exchange session between wireless communication terminals via a wireless network, and including steps of sending from a wireless communication terminal by means of a point-to point short message service in the wireless network a message containing a request for participating in a message exchange session, routing the request message from the wireless communication terminal to a message exchange session handling server via the wireless network, connecting in the message exchange session handling server the requesting wireless communication terminal to a group of communication terminals, handling a message text in said message exchange session handling server by successively adding received message text from the 15 group of communication terminals to the message text in order to update the message text, and transmitting the updated message text to the group of communication terminals participating in the message exchange session.
- 20

Hereby it is possible for an operator to set up a message exchange session

- 25 between several phones. The participants do not know each other and the chat session will be anonymous.

The second aspect of the invention is also related to a system for handling a message exchange session between wireless communication terminals via a

- 30 wireless network. The system includes means for handling a point-to point short

message service in the wireless network, a message exchange session handling server, and a group of wireless communication terminals accessing said message exchange session handling server via said point-to point short message service. The wireless communication terminals are adapted to send a

5 request for participating in a message exchange session by means of point-to point short message service to said message exchange session handling server. The message exchange session handling server has a message text for the group of wireless communication terminals, and the server updates the message text by successively adding received message text from members of

10 the group of communication terminals, and transmits the updated message text to the group of communication terminals participating in the message exchange session.

According to a third aspect of the invention there is provided a method for

15 handling a message exchange session between wireless communication terminals including steps of generating a list of communication terminals invited to participate in the message exchange session, inputting a message text, transmitting said message text to the communication terminals listed on said list, receiving a reply from one of the communication terminals listed on said list,

20 and transmitting the reply from said one of the communication terminals to the communication terminals listed on said list.

Hereby it is possible for a phone user to set up a message exchange session between several terminals where his terminal acts as server for the session.

25 This kind of session may be regarded as a conference chat. The initiating user controls the participants of the session and he is able to set up a distribution list for this purpose.

The third aspect of the invention is also related to a wireless communication

30 terminal having a message exchange session handling application for handling

- messages in a message exchange session in a wireless communication system, said terminal comprises means for generating a list of communication terminals invited to participate in the message exchange session, means for inputting a message text, means for transmitting said message text to the
- 5 communication terminals listed on said list, means for receiving a reply from one of the communication terminals listed on said list, and means for transmitting the reply from said one of the communication terminals to the communication terminals listed on said list.
- 10 For a better understanding of the present invention and to understand how the same may be brought into effect reference will now be made by way of example only to the accompanying drawings in which
- Brief Description of the Drawings**
- 15 Fig. 1 illustrates a preferred embodiment of a hand portable phone according to the invention.
- Fig. 2 schematically shows the essential parts of a telephone for communication with a cellular network.
- 20
- Fig. 3 shows a display sequence illustrating the initiation of a chat session according to the preferred embodiment of the invention.
- Fig. 4 shows a display sequence illustrating the message response in the chat session according to the preferred embodiment of the invention.
- 25
- Fig. 5 shows a display sequence illustrating a later stage in the chat session according to the preferred embodiment of the invention.

Fig. 6 shows a flow chart illustrating the steps of the message handling application according to the preferred embodiment of the invention.

Fig. 7 shows an example of the interaction between the mobile terminals and  
5 a chat server in a chat session based on a chat server in a network according to a second embodiment of the invention.

Fig. 8 shows a display sequence illustrating a chat session based on distribution lists according to a third embodiment of the invention.

10

Fig. 9 illustrates the message handling according to a third embodiment of the invention.

15

Fig. 1 shows a preferred embodiment of a phone according to the invention, and it will be seen that the phone, which is generally designated by 1, comprises a user interface having a keypad 2, a display 3, an on/off button 4, a speaker 5 (only openings are visible in the present view), and a microphone 6 (openings in bottom not visible in the present view). The phone 1 according to the preferred embodiment is adapted for communication via a cellular  
20 network.

25

According to the first embodiment shown in fig. 1, the keypad 2 has a first group 7 of keys including twelve alphanumeric keys. In addition to this the keypad 2 has one soft key 8, a scroll key 10 for navigating the cursor in the display 3, a "clear key" 9 for clearing one or more letters from the display. The calls are handled by means of the soft key 8, the scroll key 10 and the "clear key" 9. The present functionality of the soft key 8 is shown in a field in the display 3 just above the soft key 8. A phone having a single soft key is described in two pending US patent applications 08/975,126 and 08/975,232  
30 filed by the applicant.

Fig. 2 schematically shows the most important parts of a preferred embodiment of the phone, said parts being essential to the understanding of the invention. The preferred embodiment of the phone of the invention is

5 adapted for use in connection with the GSM 900MHz and GSM 1800 MHz network, but, of course, the invention may also be applied in connection with other cellular phone networks or cordless networks. A processor 18 controls the communication with the network via a transmitter/receiver circuit 19 and an antenna 20.

10

The microphone 6 transforms the user's speech into analog signals, and the analog signals formed thereby are A/D converted in an A/D converter (not shown) before the speech encoding in an audio part 14. The encoded speech signal is transferred to the processor 18, which i.a. supports the GSM terminal 15 software. The audio part 14 decodes the audio signal, which is transferred to the earpiece 5 via a D/A converter (not shown).

20 The processor 18 also forms the interface to the peripheral units of the apparatus, including a RAM memory 17a and a Flash ROM memory 17b, a SIM card 16, the display 3 and the keypad 2.

Message handling according to the preferred embodiment of the invention is based on using a standard wireless messaging concept, e.g. the Short Messaging Service (SMS) well known from the GSM specification. The user

25 sends an SMS message whenever he wants to contribute to the chatting, and he will receive a short message whenever another user has typed a new text. The chatting does not necessarily have to be based on the use of SMS messages but could also include E-mail being converted to SMS messages at the chat server and forwarded to the chat participants as an ordinary chat 30 message. Hereby the chat participants may be identified by phone number or

E-mail address or the like. Furthermore messages for communication specifications other than GSM could be used.

**First embodiment – point to point chat.**

- 5 According to the preferred embodiment the user is able to chat with another user, basically by allowing an easy swapping between message writing and message viewing. The user has to set up e.g. a phone number identifying one other specific other user for point to point chatting. With reference to fig. 3, a chat display sequence is shown for a Nokia phone having a single soft key 8
- 10 as shown in fig. 1 will be shown.

The first display 100 in fig. 3 is a chat entry display in the main menu (or inside the messages menu) of the phone, and in the preferred embodiment it includes a text label 101 defining the present functionality "select" of the soft key 8, a menu status bar 102 informing the user about the present position (menu level 5) in the menu structure and an animating icon 103 presenting the application for the user in a way so he can recognize it.

20 Selecting "chat" allows the user to define what number to chat with (point-to-point chatting). In the second display 104 the user is invited to enter a very short chat name –preferably only one or two characters – in a text box 104 and a marking bar 105 indicates the position of the next entered character. When the user has entered the chat name he presses the soft key 8 having the present functionality "OK" as shown by the text label 101.

25 Empty names could also be accepted as chat names, and preferably the name used last time is displayed as default, whereby the user only has to accept the name if he will not make amendments. When the user accepts the chat name he is (in the third display) asked for the number – either a single

30 user or a server – for the chatting.

When user has entered a chat number or fetched a chat number from the phonebook memory of the phone, he will immediately enter the "normal" SMS editor for a GSM phone, as shown in the fourth display. Here the marking bar

- 5 105 indicates the position of the character to be entered, and digit 106 the maximum number of characters that can still be entered into the message.

By selecting "Send" the phone will immediately send the written text 107 to the number specified for chatting and this will be indicated by an animation

- 10 108 shown in the sixth display. If the user presses the scroll key 10 he will get access to the alternative options available in the soft key 8. These options may include e.g. "T9 options", "Save" and "Insert template". The phone will now re-enter the text editor as shown in the seventh display of fig. 3. The other user receives the chat message as a normal message (normal SMS).

15

Fig. 4 refers to the situation where a reply has been received from the other chatter, and this message will be received as a standard SMS. This is illustrated in the first display in fig. 4. If the user wants to read the received message he presses the soft key 8 having the present functionality "read" as

- 20 shown by the text label 101. The message "Hi Jacob" is displayed in the second display and the soft key 8 now has the functionality "options" as shown by the text label 101.

When the user selects the "options" functionality a list 110 of options appears

- 25 on the display as shown in the third display with one of the options 111 ("chat") highlighted (or reversed in colours). The "reply" and the "erase" functionalities are standard short message operations, and if one of these is selected the message will be handled as such. However if the user selects "chat" the text entry display shown as the fourth display will appear.

30

- User enters text entry display or the chat editor and can send directly (several times) to the sender of the original message. The text entry display will look like the "normal" SMS editor for a GSM phone and will include the marking bar 105 indicating the position of the character to be entered, and the digit 106 that indicates the maximum number of characters that can still be entered into the message.

- By selecting "Send" the phone will immediately send the written text 107 to the number specified for chatting and this will be indicated by an animation 108 shown in the sixth display. If the user presses the scroll key 10 he will get access to the alternative options available in the soft key 8. These options may include e.g. "T9 options", "Save" and "Insert template". The phone will now re-enter the text editor as shown in the seventh display of fig. 3.
- 15 Fig. 5 shows how the user can easily receive chat messages in idle mode as well as in the chatting editor, as shown in the first display. When a message in an ongoing chat session is received, the processor 18 allows this message from the other person to directly pop-up in the editor.
- 20 Therefore the received message will be displayed immediately to the user – even if the user is in the middle of writing. As seen in the second display of the chat display displays simultaneously several (here four) individual chat messages. Each of these messages starts with a short chat name 112 identifying the person who sent the message. The chat name 112 was explained in fig. 3 and according to the present invention Christian uses the chatname "C" and Jacob the chat name "J". The chat name 112 is followed by a semicolon as spacing sign 113 and then the message text 114.

The text message may be divided into several lines and according to the preferred embodiment the text message is terminated with a line break. The newest input is automatically put on top of the older input when displayed.

When pressing the "OK" soft key 8 the phone will bring the user back to the

5 chat editor (as shown in the third display of fig. 5) to e.g. reply immediately.

When the user has entered the text to be sent, the processor 18 when sending automatically simply adds the "old" text after the new text to be sent. Hereby the full chat history is included in the displayed text.

10

According to the preferred embodiment only messages received from a chatter will be displayed this way. Chat messages will not be stored on the SIM card as normal messages do. When the user writes a second text or a response, and selects the "Send" option for the soft key, the phone will now

15 do as follows:

- Take the last received chat message and add the new text entered by the user to the beginning of the message – always on a new line.
- Maximum one SMS is used. When the message is "full" (a SMS may contain 160 characters as a default standard), the text is removed line wise from the end of the message.

20

Since all chat messages are sent as standard SMS (including the initial chat message), the person receiving an initial chat message will receive it as a standard SMS message. The reception of a message is shown as the first 25 display of fig. 4.

The embodiment explained above may be implemented as a new software application handling the messages. It is the user who determines who to invite to participate in the chat session. This is basically explained below with

30 reference to fig. 6.

- From idle mode (step 200) the user initiates the chat session by selecting chat from the menu (step 201). Then the user is requested to input a chat name (step 202) if a chat name is not stored as a default name. The user is then
- 5 requested to input a chat number (step 203), and when this is done the user enters the chat editor (step 210). When the user wants to exit the chat editor, but does not want to send the message he exits at step 214, where he e.g. may save the written text for later use or simply wants to quit without saving.
- 10 If he at step 211 indicates that he wants to send the chat message the chat history or at least a part of it is added at step 212, and the message is sent at step 213. Hereafter the phone goes back to idle mode at step 200.
- 15 In idle mode (step 200) when a message is received in step 204, the user is offered the option to read the message in step 205. If the user does not want to read the message the phone goes back to idle mode (step 200), otherwise the received message is displayed at step 206, and the user is asked whether he wants to reply to the message as chat in step 207. If he does not want to
- 20 reply to the message as chat the message is handled as an ordinary message at step 215. If he does want to reply to the message as chat, it is checked at step 208 whether a chat name has been entered. If not the chat name may be entered at 209 and the phone enters the chat editor at step 210.
- 25 **Chat based on a chat server.**
- According to this embodiment the user is still allowed to easily swap between message writing and message viewing. The user sets up a phone number to a chat server 40 in the Short Message Service Center 44 as indicated in fig. 5.
- 30 The chat service is provided by the network, and may include a server

containing chat rooms etc. When the user uses the chat room phone number the server 40 allows the requesting terminal to access an ongoing chat handled by the server. The chatting does not necessarily have to be based on the use of SMS messages but could also include E-mail being converted to

- 5 SMS messages at the chat server and forwarded to the chat participants as an ordinary chat message. Hereby the chat participants may be identified by phone number or E-mail address or the like.

A preferred embodiment of the system architecture for managing the credit

- 10 system is shown in fig. 7. A Home Location Register 45 (HLR) contains a database including relevant subscriber information for the provision of the telecommunication service. A CCITT specified network 42 interconnects the individual parts of the system. An SMS gateway & SMS interworking Mobile Switching Center (MSC) 43 is a switching unit routing a message or a call to a  
15 Mobile Station 30-34 (the phone 1). A Short Message Service Center 44 (SMSC) and the SMS gateway & SMS interworking Mobile Switching Center (MSC) 43 handles and routes the SMS's between the Short Message Service Center 44 and the Network 42. From the Network 42 the messages are routed to the Mobile Station 30-34 via a Mobile Switching Center (MSC) 41-42. Base  
20 Transceiver Station (BTS) 47-49 establish the air connection to the Mobile Stations 30-34.

According to a second embodiment of the invention a network operator or other third party company handling a chat server 40 could offer a chat function

- 25 between persons not knowing each other. For example a network operator may have a chat server 40 supporting a feature where the user may send a chat request from his mobile station 30-34 to the server 40 by means of a short message using a special phone number. This server 40 automatically places people sending a similar request message to the server 40 into "chat groups" or "chat rooms". Whenever a user being part of such a group 30-34,

sends a message to the server 40, the server 40 adds the text from the message on top of the previous communication in the chat group and forwards the up-dated communication in a message to all the other persons in the group 30-34. The chat server 40 is responsible for the distribution of the

5 text messages and the distribution lists.

When using gateways in the network the user will be allowed to specify an E-mail address for the chat server, and not just a phone number. The user should furthermore be allowed to specify two phone numbers/E-mail

10 addresses; one to which chat message is sent and one from which the server messages are received.

#### **Chat based on distribution lists.**

According to a third embodiment of the invention the initiating user first has to

15 select a distribution list to chat with. The initiating user will according to the present charging concept have to pay for a substantial part of the messages, because all messages will go through him. However there will be a market for this concept because it may be regarded as a "conference chat" similar to a conference call having multiple participants invited by an initiating user.

20 This third embodiment will be illustrated with reference to fig. 8. In the first display 100 (similar to the first display of fig. 3) is a chat entry display in the main menu of the phone, and as in the first embodiment this display includes a text label 101 defining the present functionality of the soft key 8, a menu

25 status bar 102 and an animating icon 103.

By selecting "chat" the phone allows the user to define what number to chat with. By selecting "Enter Number" or "Phonebook" in the second display the user is allowed to target a phone number for his chatting request - either

30 point-to-point chatting with another phone user as explained with reference to

the first embodiment or a chat server based multi user chat session as explained with reference to the second embodiment. The third embodiment does allow the user to initiate a conference chat session where the participants are invited by the initiating user. The user has to move the

- 5 highlighting cursor 115 to the "Distribution list" by using the scroll key 10 and selecting the operation by pressing the selection key 8.

In the third embodiment the "Chat menu" has the sub menus "Enter number" for manually inputting the chat phone number, "Phonebook" for picking the

- 10 chat phone number up from the phonebook (this is the same way as getting a phone number from the phonebook for an SMS message), and "Distribution list". The "Distribution list" submenus includes:

1. "Existing lists" – each including a number of already appointed participants for conference chat. These lists have names through  
15 which the user may scroll when he has selected the item;
2. "Add new list" – by means of which the user may name the distribution list, appoint members for a distribution list and add the distribution list to the "Existing lists" list; and
3. "Edit list" – here the user is allowed to select a distribution list from  
20 "Existing lists" and edit the distribution list name and add/delete/rename one or more of the appointed members of the distribution list.

If the user selects "Distribution list" in the second display he is allowed to

- 25 invite users included in user-defined distribution lists "Erfa-group", "Sales" and "My group" to participate in a conference chat. When the user has selected one distribution list in the third display, e.g. the highlighted one 115, he may enter a message as indicated in the fourth and fifth display of fig. 8.

When the initiating user 300 (see fig. 9) finalizes the message and presses the "Send" softkey 8 the phone starts successively sending this first message to each of the conference chat participants 310 listed on the selected distribution list (this includes N individuals 311-313). When one of the other 5 conference chat participants 312 replies (second input 315) to this first message, the reply includes the reply message on top of the original message, and the reply message is transmitted to the initiating user alone. The initiating user retransmits 316 the reply message to all the conference chat participants listed on the selected distribution list – advantageously to all 10 except the replying one.

The initiating user may of course add his comments prior to the re-transmission. The initiating user may select whether his phone automatically re-transmits this reply message or whether he should accept the re- 15 transmission. The phone of the initiating user acts as chat server and the other parties will see this chat as a point-to-point chat with the initiating user, however they will see the texts (and chat names) of the entire conversation.

However if the phone retransmits the reply automatically the phone will have 20 to distribute a third input 317 if the initiating user wants to make comments to the reply. Later on the N'th participant 313 makes an input 318 and this input is transmitted to the initiating user 300 who automatically re-transmits this input to all the conference chat participants listed on the selected distribution list – advantageously to all except from the replying one.

25

#### **Chat based on distributed distribution lists.**

The third embodiment is based on the existing GSM specification that does not allow use of distribution lists for SMS message sending. However if the specification in the future allows use of distribution lists for SMS messages 30 the initial message could as a fourth embodiment contain all phone numbers

of the conference chat participants listed on the selected distribution list, and these numbers are then sent to all chatters – the other chatters can then use the numbers inside the message to reply to the chat message. All participants will then send messages using this "distribution list".

**C L A I M S**

1. A method for handling a message exchange session between wireless communication terminals via a wireless network, and including steps of:
  - 5     • initiating a message exchange session by:
    - identifying in a first communication terminal at least one other communication terminal to be invited to participate in the message exchange session,
    - inputting a message text,
  - 10    • transmitting said message text to said at least one other communication terminal; and
  - responding to received message by:
    - inputting a message text for replying to the received message,
    - adding said inputted reply message text to the received message text,
  - 15    whereby the aggregate message text includes the message exchange session history,
  - transmitting said aggregate message text to the other communication terminal being party to the message exchange session.
- 20    2. A method according to claim 1, wherein a point-to point short message service in the wireless network is used as message exchange session.
3. A wireless communication terminal having a message exchange session handling application for handling messages in a message exchange session in a wireless communication system, said terminal comprises:
  - 25    • a software application having means for initiating a message exchange session, said initiating means includes:
    - means for identifying at least one other communication terminal to be invited to participate in the message exchange session,
  - 30    • means for entering a text input as a message text,

- a transmitter for transmitting said message text to said at least one other communication terminal; and
  - a receiver for receiving a reply from said at least one other communication terminal,
- 5     • said software application furthermore having means for replying to a message during a message exchange session, said replying means includes:
- means for entering a text input,
  - means for adding said text input to the received message text for
- 10    generating an aggregate message text for replying by means of the transmitter.
4. A wireless communication terminal according to claim 3, wherein the transmitter transmits the message text by means of a point-to point short message service in the wireless network.
- 15
5. A wireless communication terminal having a message exchange session handling application for handling messages in a message exchange session in a wireless communication system, said terminal comprises:
- said software application furthermore having means for replying to a message during a message exchange session, said replying means includes:
  - means for entering a text input,
  - means for adding said text input to the received message text for
- 20    generating an aggregate message text for replying.
- 25
6. A computer program product stored on a computer readable storage medium, comprising:
- computer readable program code means for replying to a message during a message exchange session in a wireless communication system, said
- 30

computer readable program code means provides a message exchange session handling application in a wireless communication terminal; and said computer readable program code means

- handles a text input entered by the user; and
- 5 • adds said text input to the received message text for generating an aggregate message text for replying.

7. A method for handling a message exchange session between wireless communication terminals via a wireless network, and including steps of:

- 10 • sending from a wireless communication terminal by means of a point-to point short message service in the wireless network a message containing a request for participating in a message exchange session;
- routing the request message from the wireless communication terminal to a message exchange session handling server via the wireless network;
- 15 • connecting in the message exchange session handling server the requesting wireless communication terminal to a group of communication terminals;
- handling a message text in said message exchange session handling server by successively adding received message text from group of communication
- 20 terminals to the message text in order to update the message text; and
- transmitting the updated message text to the group of communication terminals participating in the message exchange session.

8. A system for handling a message exchange session between wireless communication terminals via a wireless network, said system includes
- 25 • means for handling point-to point short message service in the wireless network;
  - a message exchange session handling server; and

- a group of wireless communication terminals accessing said message exchange session handling server via said point-to point short message service;
- said wireless communication terminals are adapted to send a request for participating in a message exchange session by means of point-to point short message service to said message exchange session handling server;
- said message exchange session handling server has a message text for the group of wireless communication terminals, and the server updates the message text by successively adding received message text from members of the group of communication terminals, and transmits the updated message text to the group of communication terminals participating in the message exchange session.

- 15 9. A method for handling a message exchange session between wireless communication terminals including steps of
- generating a list of communication terminals to be invited to participate in the message exchange session,
  - inputting a message text,
  - transmitting said message text to the communication terminals listed on said list,
  - receiving a reply from one of the communication terminals listed on said list,
  - transmitting the reply from said one of the communication terminals to the communication terminals listed on said list.

- 25 10. A method according to claim 9 wherein said message text is successively transmitted to each of said communication terminals listed on said list.

11. A method according to claims 9 or 10 wherein said reply is successively re-transmitted to each of said communication terminals listed on said list apart from the replying one.
- 5    12. A method according to claim 9 wherein the reply message text is automatically added above the previous message text prior to the re-transmission of the reply from said one of the communication terminals to the communication terminals listed on said list.
- 10    13. A wireless communication terminal having a message exchange session handling application for handling messages in a message exchange session in a wireless communication system, said terminal comprises:
- means for generating a list of communication terminals to be invited to participate in the message exchange session,
  - means for inputting a message text,
  - means for transmitting said message text to the communication terminals listed on said list,
  - means for receiving a reply from one of the communication terminals listed on said list,
  - means for transmitting the reply from said one of the communication terminals to the communication terminals listed on said list.
- 20    14. A wireless communication terminal according to claim 13 wherein the transmission means successively transmits said message text to each of said communication terminals listed on said list.
- 25    15. A wireless communication terminal according to claims 13 or 14 wherein the transmission means successively re-transmits said reply to each of said communication terminals listed on said list apart from the replying one.

16. A wireless communication terminal according to claim 13 wherein the terminal includes means for adding the reply message text above the previous message text prior to the re-transmission of the reply from said one of the communication terminals to the communication terminals listed on said list.

5

17. A wireless communication terminal for handling a message exchange session between wireless communication terminals via a wireless network substantially as herein before described with reference to fig. 1-6 in the accompanying figures.

10

18. A system for handling a message exchange session between wireless communication terminals via a wireless network substantially as herein before described with reference to fig. 1, 2 and 7 in the accompanying figures.

15

19. A wireless communication terminal for handling a message exchange session between wireless communication terminals via a wireless network substantially as herein before described with reference to fig. 1, 2 and 8 and 9 in the accompanying figures.

**A B S T R A C T****Message exchange handling concept.**

- A message exchange session between wireless communication terminals via a  
5 wireless network is initiated from one of the terminals. The user of the initiating  
terminal invites at least one other communication terminal to participate in the  
message exchange session. This is done by forwarding a message text to said  
at least one other communication terminal. The user of the other terminal  
responds to the received message by inputting a message text for replying to  
10 the received message. Then the responding terminal automatically adds the  
inputted reply message text to the received message text, whereby the  
aggregate message text includes the message exchange session history, and  
the aggregate message text is then transmitted to the other communication  
terminals being party to the message exchange session.

15

Fig. 7

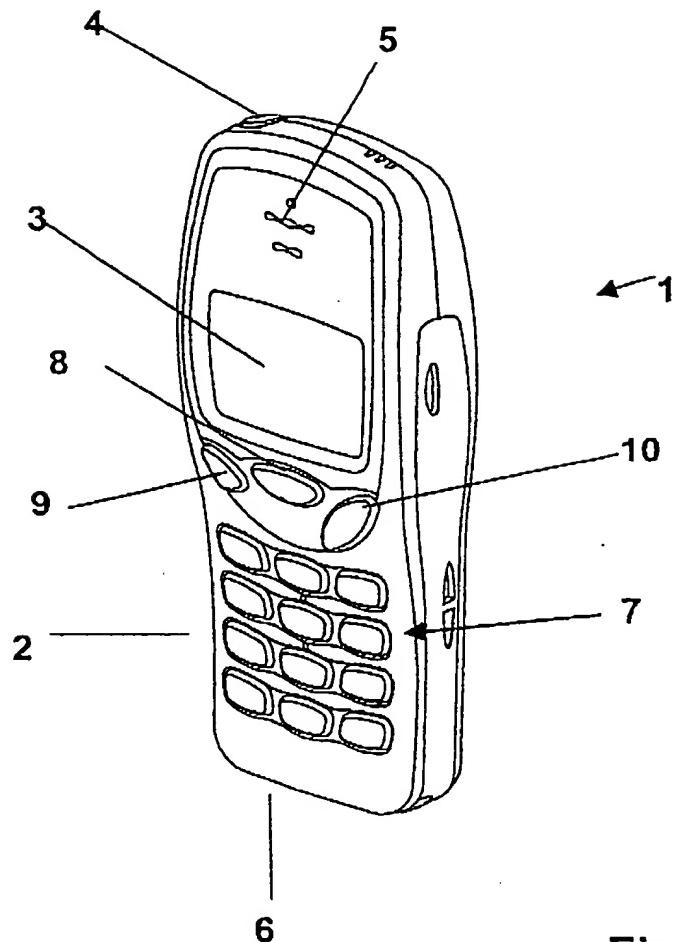


Fig. 1

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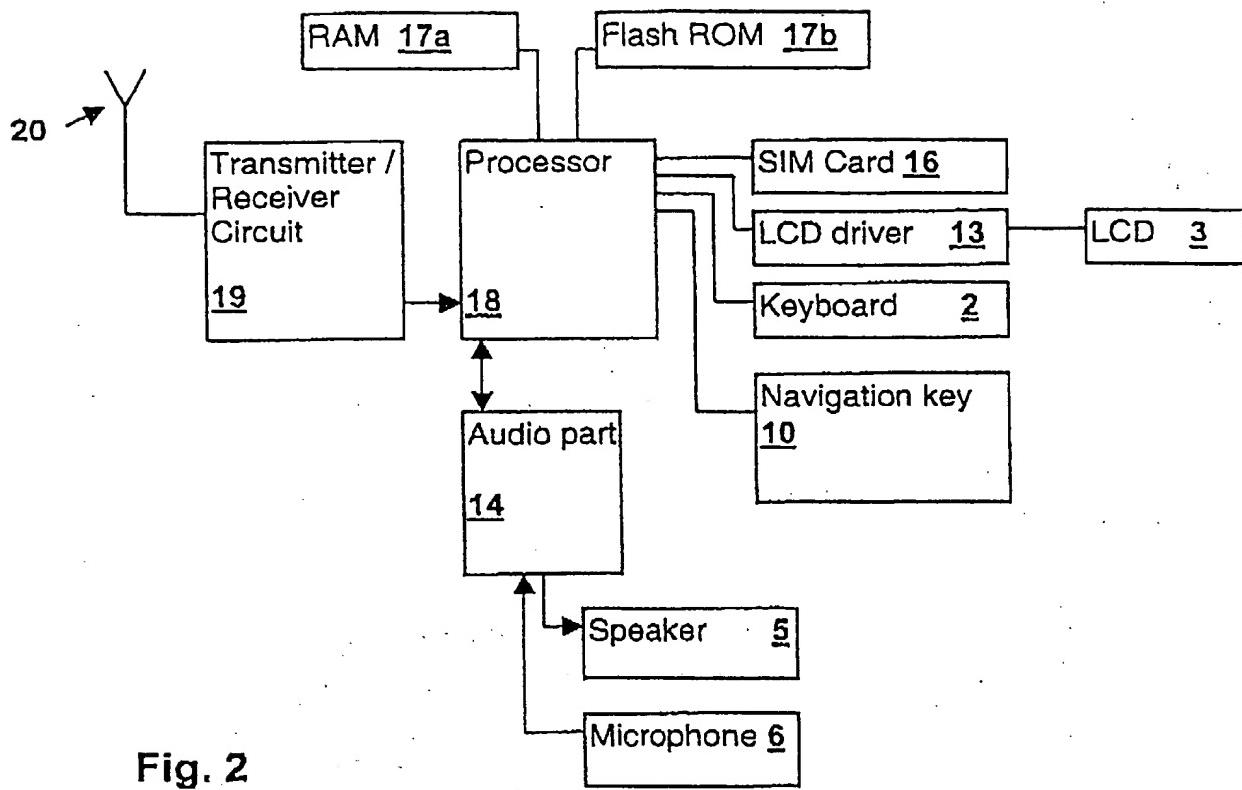


Fig. 2

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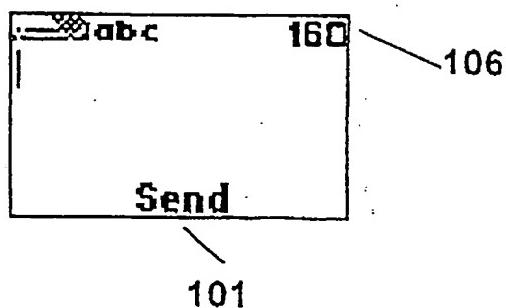
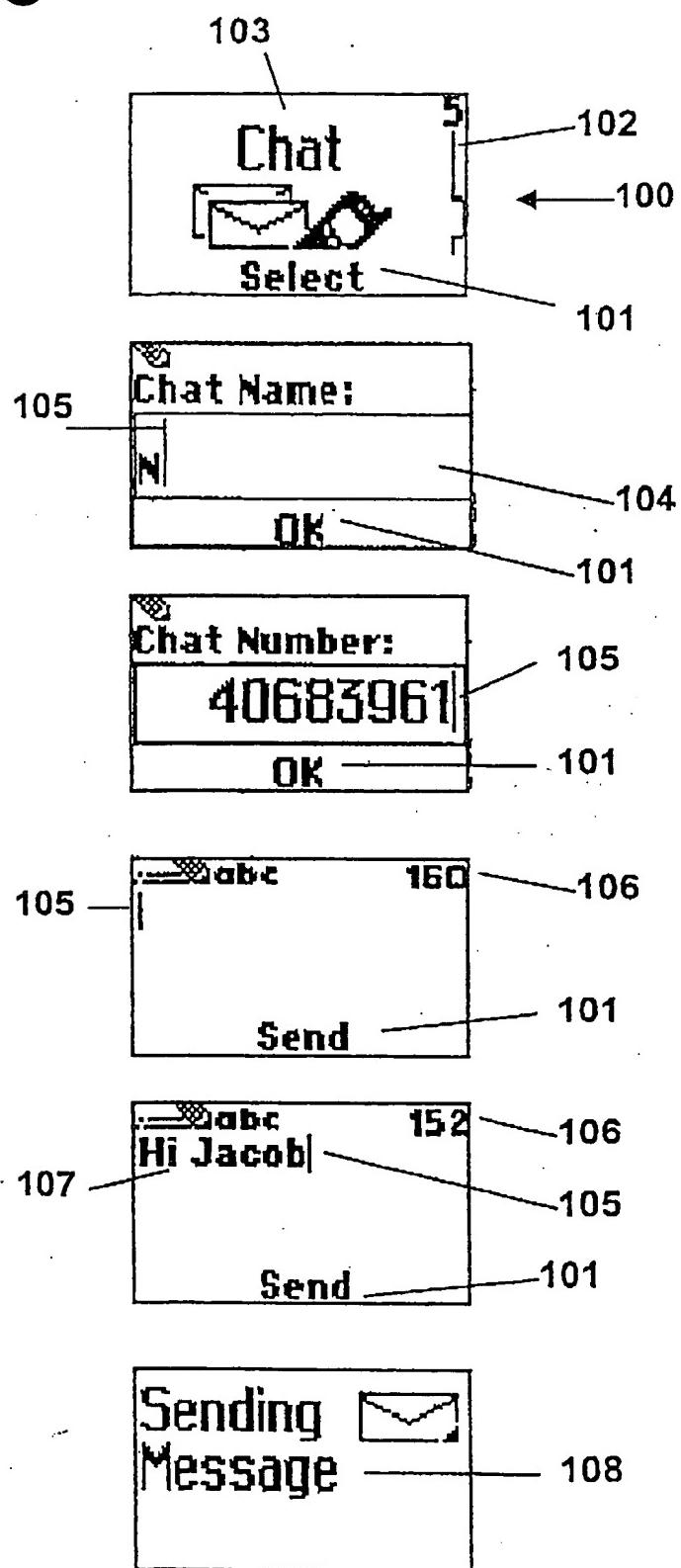
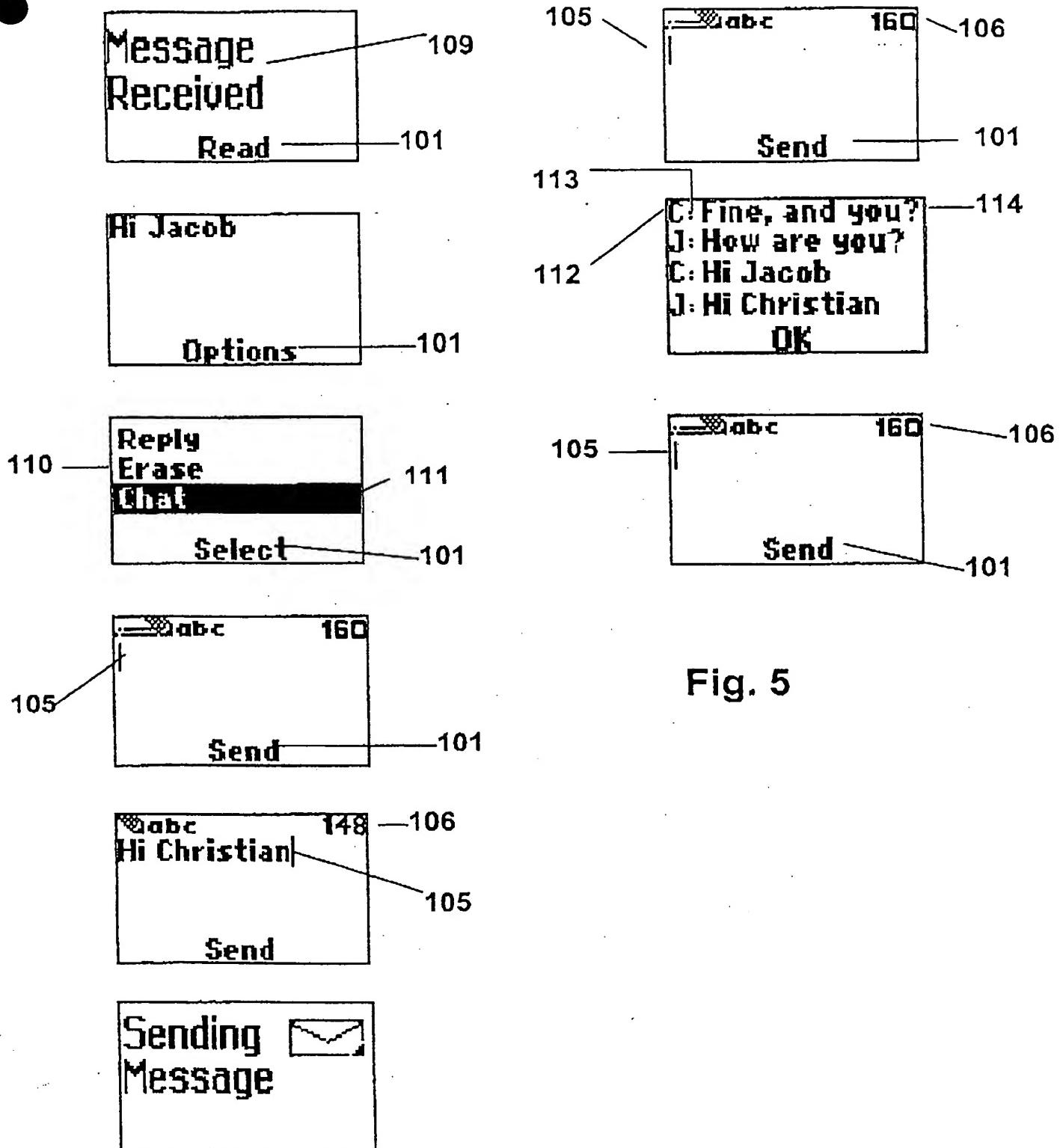
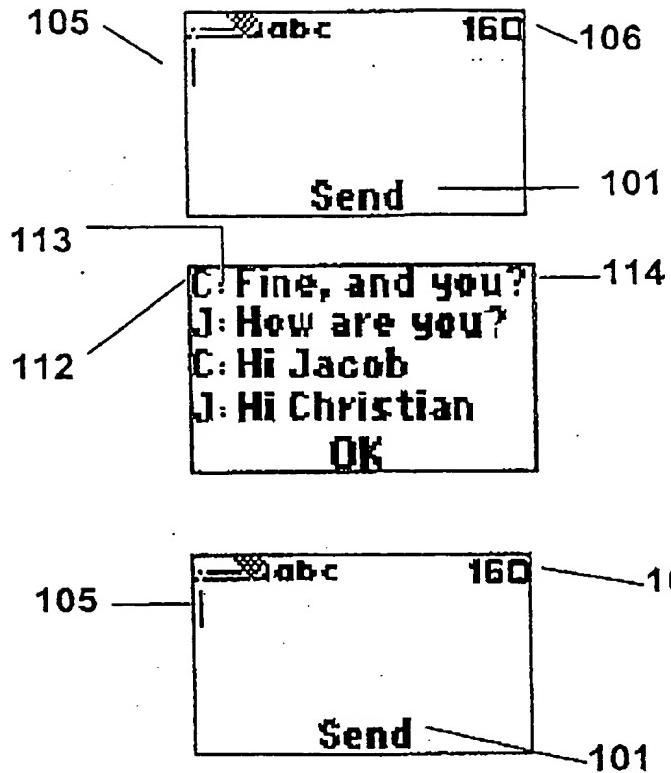


Fig. 3

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**Fig. 5**

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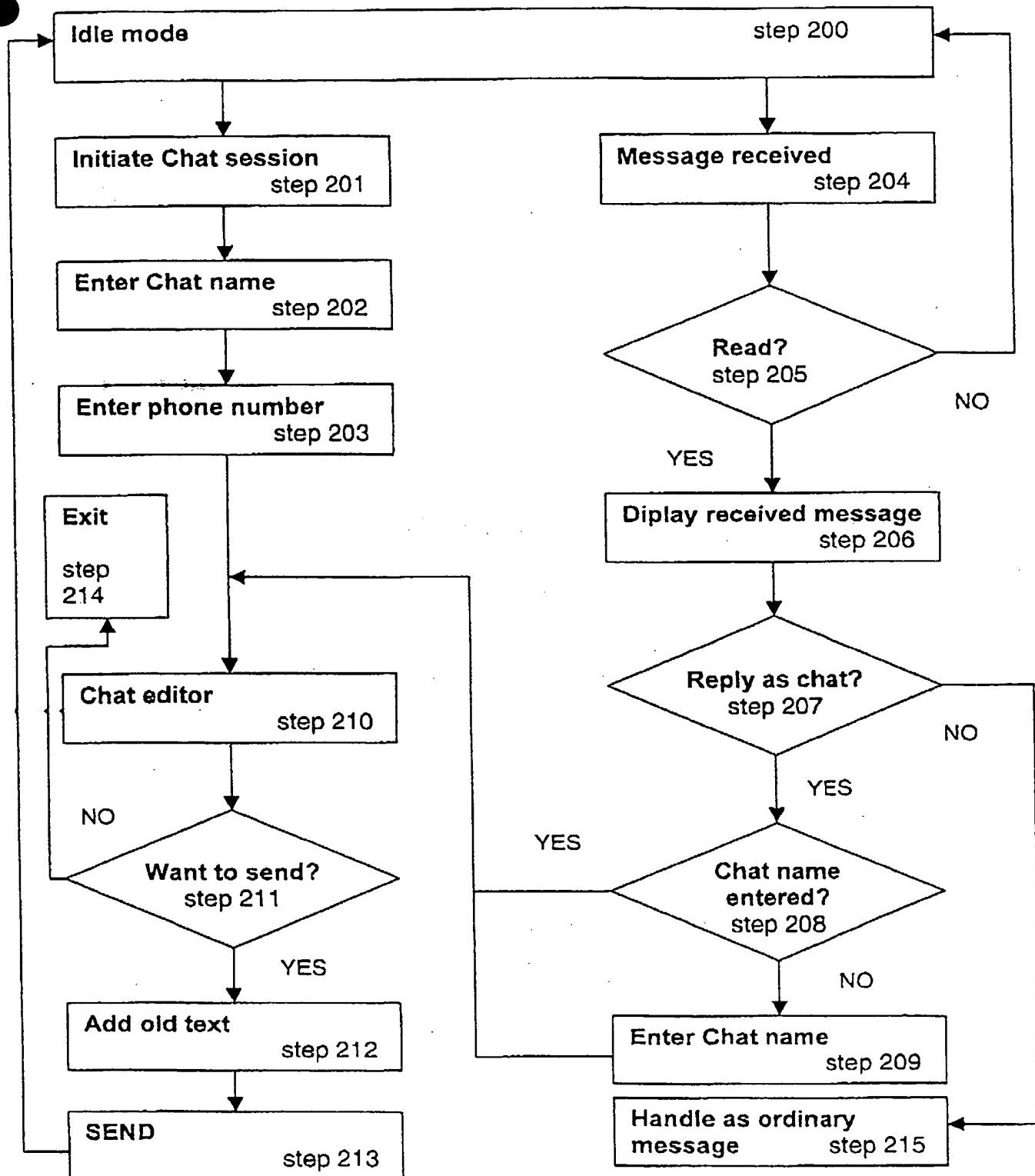


Fig. 6

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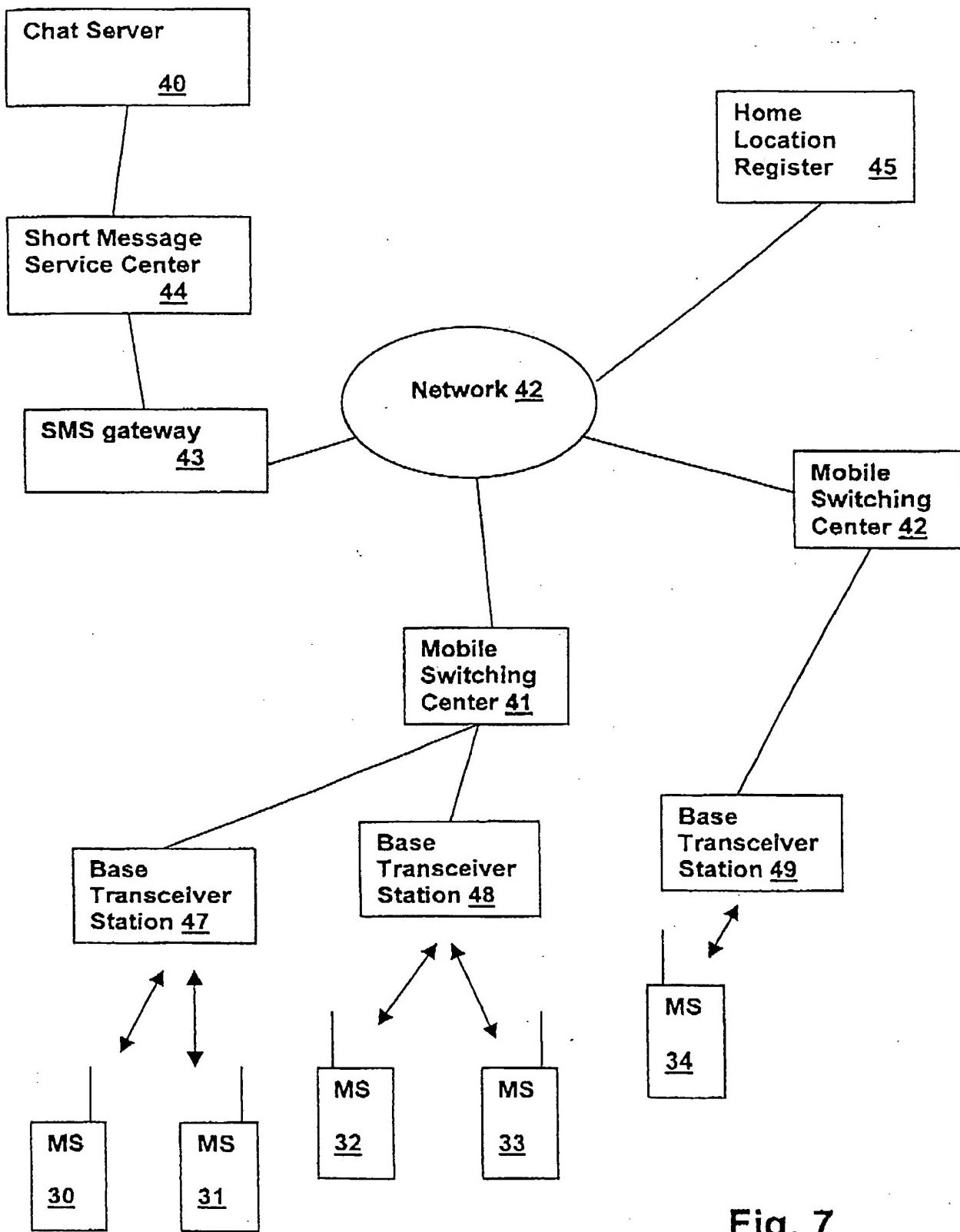


Fig. 7

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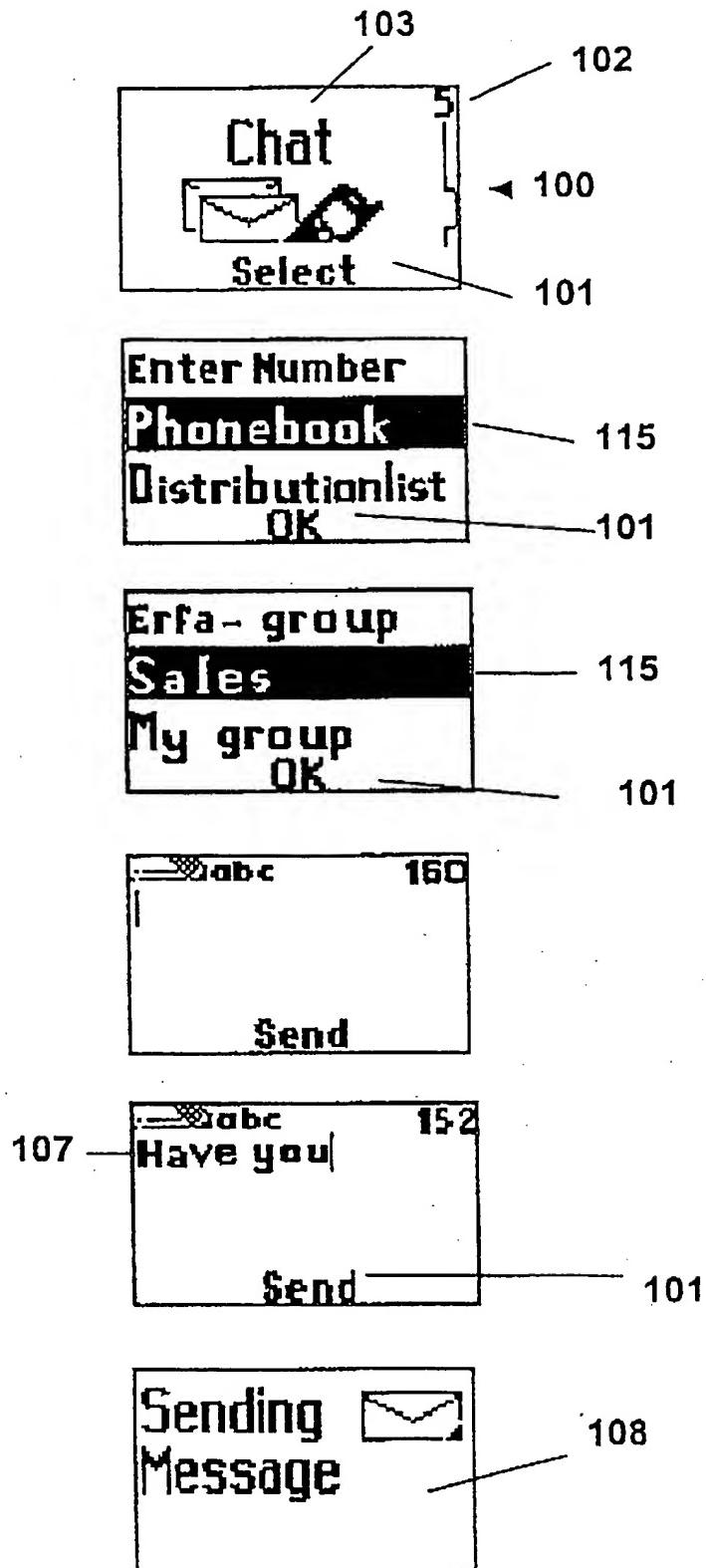


Fig. 8

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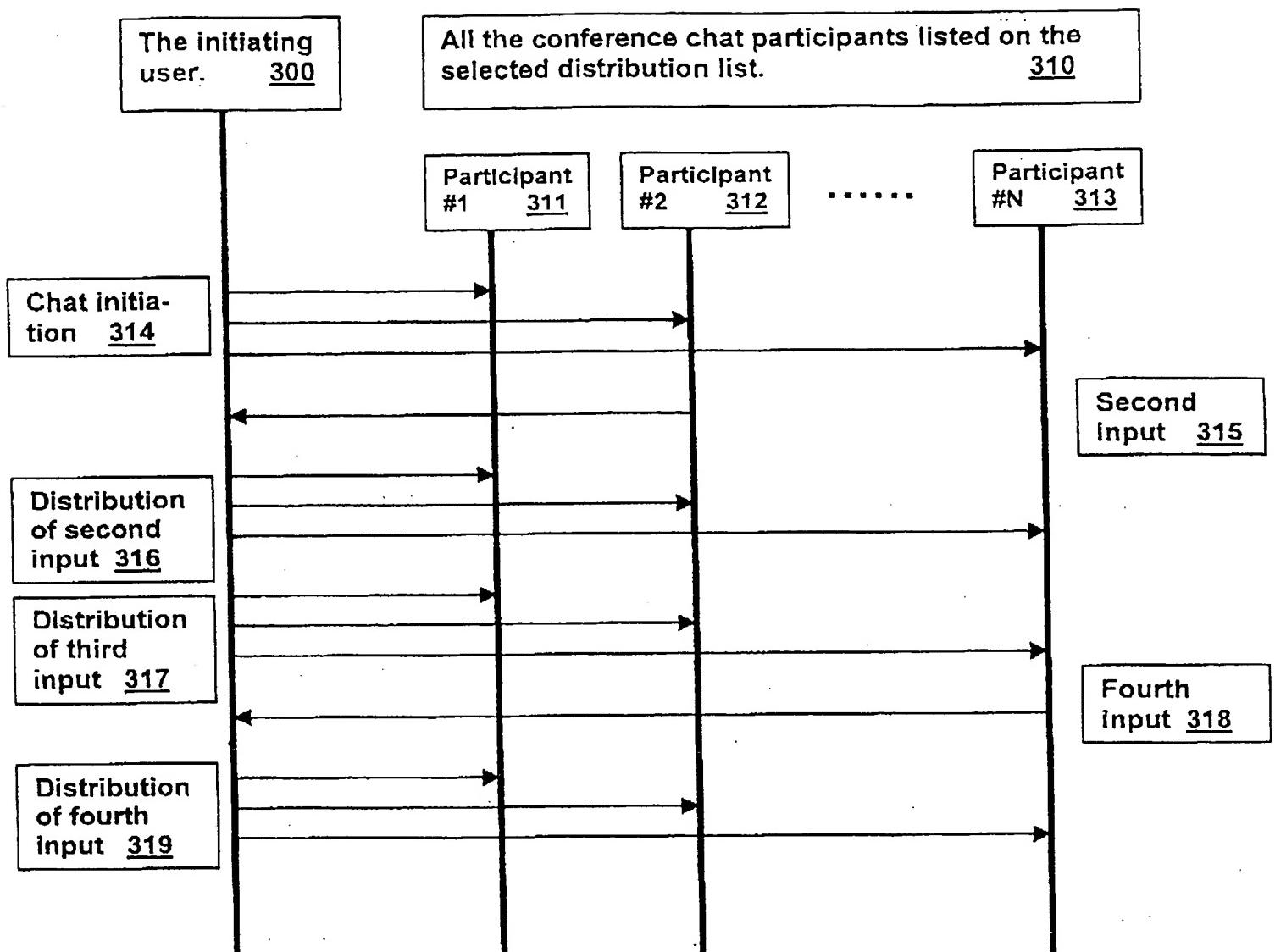


Fig. 9

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